



# 7

## SEQUENCE LISTING

<110> Alnemri, Emad S.  
Fernandez-Alnemri, Teresa

<120> CASPASE-14, AN APOTOTIC PROTEASE, NUCLEIC ACID ENCODING  
AND METHODS OF USE

<130> 480140.434D1

<140> US 09/989,903

<141> 2001-11-20

<160> 78

<170> PatentIn Ver. 2.0

<210> 1

<211> 850

<212> DNA

<213> Mus musculus

<220>

<221> modified\_base

<222> (537)

<223> Where n is Adenine, Cytosine, Guanine or Thymine

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gaggccctgg aacgcatggt ccgttacctg aaatttgaaa gcaccatgaa gagggatccc 240
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 Gly Glu Glu Gly Leu Leu Lys Gly Glu Asp Glu Lys Met Val Arg Leu  
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&lt;212&gt; DNA

&lt;213&gt; Homo sapien

&lt;220&gt;

&lt;221&gt; CDS

&lt;222&gt; (49)...(774)

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ctg gat gct ctg gaa cac atg ttt cgg cag ctg aga ttc gaa agc acc      201
Leu Asp Ala Leu Glu His Met Phe Arg Gln Leu Arg Phe Glu Ser Thr
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atg aaa aga gac ccc act gcc gag caa ttc cag gaa gag ctg gaa aaa      249
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Val Val Leu Met Ala His Gly Arg Glu Gly Phe Leu Lys Gly Glu Asp
   85                               90                95

ggg gag atg gtc aag ctg gag aat ctc ttc gag gcc ctg aac aac aag      393
Gly Glu Met Val Lys Leu Glu Asn Leu Phe Glu Ala Leu Asn Asn Lys
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aac tgc cag gcc ctg cga gct aag ccc aag gtg tac atc ata cag gcc      441
Asn Cys Gln Ala Leu Arg Ala Lys Pro Lys Val Tyr Ile Ile Gln Ala
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Ile Val Met Val Ile Lys Asp Ser Pro Gln Thr Ile Pro Thr Tyr Thr
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gat gcc ttg cac gtt tat tcc acg gta gag gga tac atc gcc tac cga      585
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Arg	Met	Ala	Glu	Ala	Glu	Leu	Val	Gln	Glu	Gly	Lys	Ala	Arg	Lys	Thr		
			215					220					225				
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Glu	Glu	Asp	Leu	Asp	Ala	Leu	Glu	His	Met	Phe	Arg	Gln	Leu	Arg	Phe	
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Glu	Ser	Thr	Met	Lys	Arg	Asp	Pro	Thr	Ala	Glu	Gln	Phe	Gln	Glu	Glu	
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Leu	Glu	Lys	Phe	Gln	Gln	Ala	Ile	Asp	Ser	Arg	Glu	Asp	Pro	Val	Ser	
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Ala	Tyr	Arg	His	Asp	Gln	Lys	Gly	Ser	Cys	Phe	Ile	Gln	Thr	Leu	Val	
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Asp	Val	Phe	Thr	Lys	Arg	Lys	Gly	His	Ile	Leu	Glu	Leu	Leu	Thr	Glu	
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Leu Asp Ala Leu Glu His Met Phe Arg Gln Leu Arg Phe Glu Ser Thr																	
40 45 50																	
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Met Lys Arg Asp 55 Pro Thr Ala Glu Gln Phe Gln Glu Glu Leu Glu Lys																	
60 65																	
ttc cag cag gcc atc gat tcc cgg gaa gat ccc gtc agt tgt gcc ttc																	296
Phe Gln Gln Ala Ile Asp Ser Arg 75 Glu Asp Pro Val Ser Cys Ala Phe																	
70 80																	
gtg gta ctc atg gct cac ggg agg gaa ggc ttc ctc aag gga gaa gat																	344
Val Val Leu Met Ala His Gly Arg Glu Gly Phe Leu Lys Gly Glu Asp																	
85 90 95																	
ggg gag atg gtc aag ctg gag aat ctc ttc gag gcc ctg aac aac aag																	392
Gly Glu Met Val Lys Leu Glu Asn Leu Phe Glu Ala Leu Asn Asn Lys																	
100 105 110 115																	
aac tgc cag gcc ctg cga gct aag ccc aag gtg tac atc ata cag gcc																	440
Asn Cys Gln Ala Leu Arg Ala Lys Pro Lys Val Tyr Ile Ile Gln Ala																	
120 125 130																	
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Cys Arg Gly Glu Gln Arg Asp Pro Gly Glu Thr Val Gly Gly Asp Glu																	
135 140 145																	
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Ile Val Met Val Ile Lys Asp Ser Pro Gln Thr Ile Pro Thr Tyr Thr																	
150 155 160																	
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Asp Ala Leu His Val Tyr Ser Thr Val Glu Gly Pro Thr Pro Phe Gln																	
165 170 175																	

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 200 205 210

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 Cys Ala Phe Val Val Leu Met Ala His Gly Arg Glu Gly Phe Leu Lys  
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 130 135 140  
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 145 150 155 160  
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 165 170 175  
 Pro Phe Gln Asp Pro Leu Tyr Leu Pro Ser Glu Ala Pro Pro Asn Pro  
 180 185 190  
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Ala	Leu	Ile	Leu	Cys	Val	Thr	Lys	Ala	Arg	Glu	Gly	Ser	Glu	Glu	Glu		
20				25				30				35					
gag	ctg	gaa	aaa	ttc	cag	cag	gcc	atc	gat	tcc	cgg	gaa	gat	ccc	gtc		201
Glu	Leu	Glu	Lys	Phe	Gln	Gln	Ala	Ile	Asp	Ser	Arg	Glu	Asp	Pro	Val		
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Ser	Cys	Ala	Phe	Val	Val	Leu	Met	Ala	His	Gly	Arg	Glu	Gly	Phe	Leu		
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Lys	Gly	Glu	Asp	Gly	Glu	Met	Val	Lys	Leu	Glu	Asn	Leu	Phe	Glu	Ala		
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Leu	Asn	Asn	Lys	Asn	Cys	Gln	Ala	Leu	Arg	Ala	Lys	Pro	Lys	Val	Tyr		
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Pro	Thr	Tyr	Thr	Asp	Ala	Leu	His	Val	Tyr	Ser	Thr	Val	Glu	Gly	Tyr		
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atc	gcc	tac	cga	cat	gat	cag	aaa	ggc	tca	tgc	ttt	atc	cag	acc	ctg		537
Ile	Ala	Tyr	Arg	His	Asp	Gln	Lys	Gly	Ser	Cys	Phe	Ile	Gln	Thr	Leu		
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gtg	gat	gtg	ttc	acg	aag	agg	aaa	gga	cat	atc	ttg	gaa	ctt	ctg	aca		585
Val	Asp	Val	Phe	Thr	Lys	Arg	Lys	Gly	His	Ile	Leu	Glu	Leu	Leu	Thr		
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gca agg aaa acg aac cct gaa atc caa agc acc ctc cgg aaa cgg ctg 681  
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 Asp Pro Val Ser Cys Ala Phe Val Val Leu Met Ala His Gly Arg Glu  
 50 55 60  
 Gly Phe Leu Lys Gly Glu Asp Gly Glu Met Val Lys Leu Glu Asn Leu  
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 Phe Glu Ala Leu Asn Asn Lys Asn Cys Gln Ala Leu Arg Ala Lys Pro  
 85 90 95  
 Lys Val Tyr Ile Ile Gln Ala Cys Arg Gly Glu Gln Arg Asp Pro Gly  
 100 105 110  
 Glu Thr Val Gly Gly Asp Glu Ile Val Met Val Ile Lys Asp Ser Pro  
 115 120 125  
 Gln Thr Ile Pro Thr Tyr Thr Asp Ala Leu His Val Tyr Ser Thr Val  
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 Glu Gly Tyr Ile Ala Tyr Arg His Asp Gln Lys Gly Ser Cys Phe Ile  
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 Gln Thr Leu Val Asp Val Phe Thr Lys Arg Lys Gly His Ile Leu Glu  
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 Glu Met Glu Glu Pro Glu Glu Ser Leu Asn Thr Leu Lys Leu Cys Ser  
           35                  40                  45  
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 Leu Leu Glu Asp Leu Gly Tyr Asp Val Val Val Lys Glu Glu Leu Thr  
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 Asp Val Leu Gln Tyr Asp Thr Ile Tyr Gln Ile Phe Asn Asn Cys His  
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 Cys Pro Gly Leu Arg Asp Lys Pro Lys Val Ile Ile Val Gln Ala Cys  
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 Arg Gly Gly Asn Ser Gly Glu Met Trp Ile Arg Glu Ser Ser Lys Pro  
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 Tyr Phe Ile Thr Arg Leu Ile Ser Cys Phe Arg Lys His Ala Cys Ser  
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 Cys His Leu Phe Asp Ile Phe Leu Lys Val Gln Gln Ser Phe Glu Lys  
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 Ala Ser Ile His Ser Gln Met Pro Thr Ile Asp Arg Ala Thr Leu Thr  
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Ser Phe Ile Leu Asn Lys Ala Glu Asn Leu Val Glu Asn Phe Leu Glu  
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Lys Thr Asp Met Ala Gly Lys Ile Phe Ala Gly His Ile Ala Asn Ser  
 65 70 75 80

Gln Glu Gln Leu Ser Leu Gln Phe Ser Asn Asp Glu Asp Asp Gly Pro  
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Gln Lys Ile Cys Thr Pro Ser Ser Pro Ser Glu Ser Lys Arg Lys Val  
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Glu Asp Asp Glu Met Glu Val Asn Ala Gly Leu Ala His Glu Ser His  
 115 120 125

Leu Met Leu Thr Ala Pro His Gly Leu Gln Ser Ser Glu Val Gln Asp  
 130 135 140

Thr Leu Lys Leu Cys Pro Arg Asp Gln Phe Cys Lys Ile Lys Thr Glu  
 145 150 155 160

Arg Ala Lys Glu Ile Tyr Pro Val Met Glu Lys Glu  
 165 170

&lt;210&gt; 17

&lt;211&gt; 62

&lt;212&gt; PRT

&lt;213&gt; Mus musculus

&lt;400&gt; 17

Gly Arg Thr Arg Leu Ala Leu Ile Ile Cys Asn Lys Lys Phe Asp Tyr  
 1 5 10 15

Leu Phe Asp Arg Asp Asn Ala Asp Thr Asp Ile Leu Asn Met Gln Glu  
 20 25 30

Leu Leu Glu Asn Leu Gly Tyr Ser Val Val Leu Lys Glu Asn Leu Thr  
 35 40 45

Ala Gln Glu Met Glu Thr Glu Leu Met Gln Phe Ala Gly Arg  
 50 55 60

&lt;210&gt; 18

&lt;211&gt; 74

&lt;212&gt; PRT

<213> Mus musculus

<400> 18

Pro	Glu	His	Gln	Ser	Ser	Asp	Ser	Thr	Phe	Leu	Val	Phe	Met	Ser	His
1				5					10					15	
Gly	Ile	Leu	Glu	Gly	Ile	Cys	Gly	Val	Lys	His	Arg	Asn	Lys	Lys	Pro
		20						25					30		
Asp	Val	Leu	His	Asp	Asp	Thr	Ile	Phe	Lys	Ile	Phe	Asn	Asn	Ser	Asn
		35					40					45			
Cys	Arg	Ser	Leu	Arg	Asn	Lys	Pro	Lys	Ile	Leu	Ile	Met	Gln	Ala	Cys
	50					55					60				
Arg	Gly	Arg	Tyr	Asn	Gly	Thr	Ile	Trp	Val						
65					70										

<210> 19

<211> 21

<212> PRT

<213> Mus musculus

<400> 19

Ser	Thr	Asn	Lys	Gly	Ile	Ala	Thr	Ala	Asp	Thr	Asp	Glu	Glu	Arg	Val
1				5					10					15	
Leu	Ser	Cys	Lys	Trp											
			20												

<210> 20

<211> 90

<212> PRT

<213> Mus musculus

<400> 20

Asn	Asn	Ser	Ile	Thr	Lys	Ala	His	Val	Glu	Thr	Asp	Phe	Ile	Ala	Phe
1				5					10					15	
Lys	Ser	Ser	Thr	Pro	His	Asn	Ile	Ser	Trp	Arg	Val	Gly	Lys	Thr	Gly
			20					25					30		
Ser	Leu	Phe	Ile	Ser	Lys	Leu	Ile	Asp	Cys	Phe	Lys	Lys	Tyr	Cys	Trp
		35					40					45			
Cys	Tyr	His	Leu	Glu	Glu	Ile	Phe	Arg	Lys	Val	Gln	His	Ser	Phe	Glu
	50					55					60				
Val	Pro	Gly	Glu	Leu	Thr	Gln	Met	Pro	Thr	Ile	Glu	Arg	Val	Ser	Met
65					70					75					80
Thr	Arg	Tyr	Phe	Tyr	Leu	Phe	Pro	Gly	Asn						
				85					90						

<210> 21  
 <211> 119  
 <212> PRT  
 <213> Mus musculus

<400> 21  
 Met Ala Asp Lys Ile Leu Arg Ala Lys Arg Lys Gln Phe Ile Asn Ser  
   1                  5                  10                  15  
 Val Ser Ile Gly Thr Ile Asn Gly Leu Leu Asp Glu Leu Leu Glu Lys  
                   20                  25                  30  
 Arg Val Leu Asn Gln Glu Glu Met Asp Lys Ile Lys Leu Ala Asn Ile  
           35                  40                  45  
 Thr Ala Met Asp Lys Ala Arg Asp Leu Cys Asp His Val Ser Lys Lys  
   50                  55                  60  
 Gly Pro Gln Ala Ser Gln Ile Phe Ile Thr Tyr Ile Cys Asn Glu Asp  
   65                  70                  75                  80  
 Cys Tyr Leu Ala Gly Ile Leu Glu Leu Gln Ser Ala Pro Ser Ala Glu  
                   85                  90                  95  
 Thr Phe Val Ala Thr Glu Asp Ser Lys Gly Gly His Pro Ser Ser Ser  
           100                  105                  110  
 Glu Thr Lys Glu Glu Gln Asn  
           115

<210> 22  
 <211> 11  
 <212> PRT  
 <213> Mus musculus

<400> 22  
 Lys Glu Asp Gly Thr Phe Pro Gly Leu Thr Gly  
   1                  5                  10

<210> 23  
 <211> 28  
 <212> PRT  
 <213> Mus musculus

<400> 23  
 Thr Leu Lys Phe Cys Pro Leu Glu Lys Ala Gln Lys Leu Trp Lys Glu  
   1                  5                  10                  15  
 Asn Pro Ser Glu Ile Tyr Pro Ile Met Asn Thr Thr  
           20                  25

<210> 24  
 <211> 62  
 <212> PRT

<213> Mus musculus

<400> 24

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Thr Arg Thr Arg Leu Ala Leu Ile Ile Cys Asn Thr Glu Phe Gln His
 1           5           10           15
Leu Ser Pro Arg Val Gly Ala Gln Val Asp Leu Arg Glu Met Lys Leu
          20           25           30
Leu Leu Glu Asp Leu Gly Tyr Thr Val Lys Val Lys Glu Asn Leu Thr
          35           40           45
Ala Leu Glu Met Val Lys Glu Val Lys Glu Phe Ala Ala Cys
          50           55           60

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<210> 25

<211> 77

<212> PRT

<213> Mus musculus

<400> 25

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Pro Glu His Lys Thr Ser Asp Ser Thr Phe Leu Val Phe Met Ser His
 1           5           10           15
Gly Ile Gln Glu Gly Ile Cys Gly Thr Thr Tyr Ser Asn Glu Val Ser
          20           25           30
Asp Ile Leu Lys Val Asp Thr Ile Phe Gln Met Met Asn Thr Leu Lys
          35           40           45
Cys Pro Ser Leu Lys Asp Lys Pro Lys Val Ile Ile Ile Gln Ala Cys
          50           55           60
Arg Gly Glu Lys Gln Gly Val Val Leu Leu Lys Asp Ser
          65           70           75

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<210> 26

<211> 105

<212> PRT

<213> Mus musculus

<400> 26

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Val Arg Asp Ser Glu Glu Asp Phe Leu Thr Asp Ala Ile Phe Glu Asp
 1           5           10           15
Asp Gly Ile Lys Lys Ala His Ile Glu Lys Asp Phe Ile Ala Phe Cys
          20           25           30
Ser Ser Thr Pro Asp Asn Val Ser Trp Arg His Pro Val Arg Gly Ser
          35           40           45
Leu Phe Ile Glu Ser Leu Ile Lys His Met Lys Glu Tyr Ala Trp Ser
          50           55           60
Cys Asp Leu Glu Asp Ile Phe Arg Lys Val Arg Phe Ser Phe Glu Gln

```

<400> 29  
Glu Asp His Ser Lys Arg Ser Ser Phe Val Cys Val Ile Leu Ser His  
1 5 10 15  
Gly Asp Glu Gly Val Ile Tyr Gly Thr Asn Gly Pro  
20 25

<210> 30  
 <211> 39  
 <212> PRT  
 <213> Mus musculus

<400> 30  
 Val Glu Leu Lys Lys Leu Thr Ser Phe Phe Arg Gly Asp Tyr Cys Arg  
   1                  5                  10                  15  
 Ser Leu Thr Gly Lys Pro Lys Leu Phe Ile Ile Gln Ala Cys Arg Gly  
           20                  25                  30  
 Thr Glu Leu Asp Cys Gly Ile  
           35

<210> 31  
 <211> 4  
 <212> PRT  
 <213> Mus musculus

<400> 31  
 Glu Thr Asp Ser  
   1

<210> 32  
 <211> 7  
 <212> PRT  
 <213> Mus musculus

<400> 32  
 Thr Asp Glu Glu Met Ala Cys  
   1                  5

<210> 33  
 <211> 42  
 <212> PRT  
 <213> Mus musculus

<400> 33  
 Gln Lys Ile Pro Val Glu Ala Asp Phe Leu Tyr Ala Tyr Ser Thr Ala  
   1                  5                  10                  15  
 Pro Gly Tyr Tyr Ser Trp Arg Asn Ser Lys Asp Gly Ser Trp Phe Ile  
           20                  25                  30  
 Gln Ser Leu Cys Ser Met Leu Lys Leu Tyr  
       35                  40

<210> 34  
 <211> 51  
 <212> PRT  
 <213> Mus musculus



&lt;400&gt; 34

Ala His Lys Leu Glu Phe Met His Ile Leu Thr Arg Val Asn Arg Lys  
 1 5 10 15

Val Ala Thr Glu Phe Glu Ser Phe Ser Leu Asp Ser Thr Phe His Ala  
 20 25 30

Lys Lys Gln Ile Pro Cys Ile Val Ser Met Leu Thr Lys Glu Leu Tyr  
 35 40 45

Phe Tyr His  
 50

&lt;210&gt; 35

&lt;211&gt; 81

&lt;212&gt; PRT

&lt;213&gt; Mus musculus

&lt;400&gt; 35

Met Thr Asp Asp Gln Asp Cys Ala Ala Glu Leu Glu Lys Val Asp Ser  
 1 5 10 15

Ser Ser Glu Asp Gly Val Asp Ala Lys Pro Asp Arg Ser Ser Ile Ile  
 20 25 30

Ser Ser Ile Leu Leu Lys Lys Lys Arg Asn Ala Ser Ala Gly Pro Val  
 35 40 45

Arg Thr Gly Arg Asp Arg Val Pro Thr Tyr Leu Tyr Arg Met Asp Phe  
 50 55 60

Gln Lys Met Gly Lys Cys Ile Ile Ile Asn Asn Lys Asn Phe Asp Lys  
 65 70 75 80

Ala

&lt;210&gt; 36

&lt;211&gt; 47

&lt;212&gt; PRT

&lt;213&gt; Mus musculus

&lt;400&gt; 36

Thr Gly Met Asp Val Arg Asn Gly Thr Asp Lys Asp Ala Gly Ala Leu  
 1 5 10 15

Phe Lys Cys Phe Gln Asn Leu Gly Phe Glu Val Thr Val His Asn Asp  
 20 25 30

Cys Ser Cys Ala Lys Met Gln Asp Leu Leu Arg Lys Ala Ser Glu  
 35 40 45

&lt;210&gt; 37

&lt;211&gt; 28

<212> PRT  
 <213> Mus musculus

<400> 37  
 Glu Asp His Ser Asn Ser Ala Cys Phe Ala Cys Val Leu Leu Ser His  
   1                  5                  10                  15  
 Gly Glu Glu Asp Leu Ile Tyr Gly Lys Asp Gly Val  
                   20                  25

<210> 38  
 <211> 39  
 <212> PRT  
 <213> Mus musculus

<400> 38  
 Thr Pro Ile Lys Asp Leu Thr Ala His Phe Arg Gly Asp Arg Cys Lys  
   1                  5                  10                  15  
 Thr Leu Leu Glu Lys Pro Lys Leu Phe Phe Ile Gln Ala Cys Arg Gly  
                   20                  25                  30  
 Thr Glu Leu Asp Asp Gly Ile  
                   35

<210> 39  
 <211> 4  
 <212> PRT  
 <213> Mus musculus

<400> 39  
 Gln Ala Asp Ser  
   1

<210> 40  
 <211> 52  
 <212> PRT  
 <213> Mus musculus

<400> 40  
 Pro Ile Asn Asp Ile Asp Ala Asn Pro Arg Asn Lys Ile Pro Val Glu  
   1                  5                  10                  15  
 Ala Asp Phe Leu Phe Ala Tyr Ser Thr Val Pro Gly Tyr Tyr Ser Trp  
                   20                  25                  30  
 Arg Asn Pro Gly Lys Gly Ser Trp Phe Val Gln Ala Leu Cys Ser Ile  
                   35                  40                  45  
 Leu Asn Glu His  
                   50

<210> 41

<211> 51  
 <212> PRT  
 <213> Mus musculus

<400> 41  
 Gly Lys Asp Leu Glu Ile Met Gln Ile Leu Thr Arg Val Asn Asp Arg  
   1                  5                  10                  15  
 Val Ala Arg His Phe Glu Ser Gln Ser Asp Asp Pro Arg Phe Asn Glu  
                   20                  25                  30  
 Lys Lys Gln Ile Pro Cys Met Val Ser Met Leu Thr Lys Glu Leu Tyr  
           35                  40                  45  
 Phe Ser Arg  
       50

<210> 42  
 <211> 41  
 <212> PRT  
 <213> Mus musculus

<400> 42  
 Met Thr Glu Thr Asp Gly Phe Tyr Lys Ser Arg Glu Val Phe Asp Pro  
   1                  5                  10                  15  
 Ala Glu Gln Tyr Lys Met Asp His Lys Arg Arg Gly Val Ala Leu Ile  
           20                  25                  30  
 Phe Asn His Glu Arg Phe Phe Trp His  
       35                  40

<210> 43  
 <211> 47  
 <212> PRT  
 <213> Mus musculus

<400> 43  
 Leu Thr Leu Pro Glu Arg Arg Gly Thr Asn Ala Asp Arg Asp Asn Leu  
   1                  5                  10                  15  
 Thr Arg Arg Phe Ser Asp Leu Gly Phe Glu Val Lys Cys Phe Asn Asp  
           20                  25                  30  
 Leu Arg Ala Glu Glu Leu Leu Leu Lys Ile His Glu Val Ser Thr  
       35                  40                  45

<210> 44  
 <211> 28  
 <212> PRT  
 <213> Mus musculus

<400> 44  
 Ser Ser His Ile Asp Ala Asp Cys Phe Ile Cys Val Phe Leu Ser His

1                      5                      10                      15  
 Gly Glu Gly Asn His Val Tyr Ala Tyr Asp Ala Lys  
                     20                      25

<210> 45  
 <211> 51  
 <212> PRT  
 <213> Mus musculus

<400> 45  
 Ile Glu Ile Gln Thr Leu Thr Gly Leu Phe Lys Gly Asp Lys Cys Gln  
   1                      5                      10                      15  
 Ser Leu Val Gly Lys Pro Lys Ile Phe Ile Ile Gln Ala Cys Arg Gly  
                     20                      25                      30  
 Ser Gln His Asp Val Pro Val Val Pro Leu Asp Met Val Asp His Gln  
                     35                      40                      45  
 Thr Asp Lys  
                     50

<210> 46  
 <211> 52  
 <212> PRT  
 <213> Mus musculus

<400> 46  
 Asn Val Thr Gln Val Asp Ala Ala Ser Val Tyr Thr Leu Pro Ala Gly  
   1                      5                      10                      15  
 Ala Asp Phe Leu Met Cys Tyr Ser Val Ala Glu Gly Tyr Tyr Ser His  
                     20                      25                      30  
 Arg Glu Thr Val Asn Gly Ser Trp Tyr Ile Gln Asp Leu Cys Glu Met  
                     35                      40                      45  
 Leu Ala Arg Tyr  
                     50

<210> 47  
 <211> 55  
 <212> PRT  
 <213> Mus musculus

<400> 47  
 Gly Ser Ser Leu Glu Phe Thr Glu Leu Leu Thr Leu Val Asn Arg Lys  
   1                      5                      10                      15  
 Val Ser Gln Arg Arg Val Asp Phe Cys Lys Asp Pro Asp Ala Ile Gly  
                     20                      25                      30  
 Lys Lys Gln Val Pro Cys Phe Ala Ser Met Leu Thr Lys Lys Leu His

35                      40                      45  
 Phe Cys Pro Lys Pro Ser Lys  
     50                      55  
  
 <210> 48  
 <211> 250  
 <212> PRT  
 <213> Mus musculus  
  
 <400> 48  
 Met Asp Phe Gln Ser Cys Leu Asp Ala Ile Ala Glu Glu Leu Gly Ser  
   1                      5                      10                      15  
 Glu Asp Leu Ala Ala Leu Lys Phe Leu Cys Leu Asp Tyr Ile Pro His  
                     20                      25                      30  
 Lys Lys Leu Glu Thr Ile Glu Asp Ala Gln Lys Leu Phe Leu Arg Leu  
                     35                      40                      45  
 Arg Glu Lys Gly Met Leu Glu Glu Gly Asn Leu Ser Phe Leu Lys Glu  
                     50                      55                      60  
 Leu Leu Phe His Ile Ser Arg Trp Asp Leu Leu Val Asn Phe Leu Asp  
                     65                      70                      75                      80  
 Cys Asn Arg Glu Glu Met Val Arg Glu Leu Arg Asp Pro Arg Gln Cys  
                     85                      90                      95  
 Pro Arg Phe Leu Pro Tyr Arg Ser Cys Ser Phe Arg Leu Ser Glu Glu  
                     100                      105                      110  
 Val Ser Glu Leu Glu Leu Arg Ser Phe Lys Phe Leu Leu Asn Asn Glu  
                     115                      120                      125  
 Ile Pro Lys Cys Lys Leu Glu Asp Asp Leu Ser Leu Leu Glu Ile Phe  
                     130                      135                      140  
 Val Glu Met Glu Lys Arg Thr Met Leu Ala Glu Asn Asn Leu Glu Thr  
                     145                      150                      155                      160  
 Leu Lys Ser Ile Cys Asp Gln Val Asn Lys Ser Leu Leu Gly Lys Ile  
                     165                      170                      175  
 Glu Asp Tyr Glu Arg Ser Ser Thr Glu Arg Arg Met Ser Leu Glu Gly  
                     180                      185                      190  
 Arg Glu Glu Leu Pro Pro Ser Val Leu Asp Glu Met Ser Leu Lys Met  
                     195                      200                      205  
 Ala Glu Leu Cys Asp Ser Pro Arg Glu Gln Asp Ser Glu Ser Arg Thr  
                     210                      215                      220  
 Ser Asp Lys Val Tyr Gln Met Lys Asn Lys Pro Arg Gly Tyr Cys Leu  
                     225                      230                      235                      240

Ile Ile Asn Asn His Asp Phe Ser Lys Ala  
                   245                  250

<210> 49  
 <211> 54  
 <212> PRT  
 <213> Mus musculus

<400> 49  
 Arg Glu Asp Ile Thr Gln Leu Arg Lys Met Lys Asp Arg Lys Gly Thr  
   1                  5                  10                  15  
 Asp Cys Asp Lys Glu Ala Leu Ser Lys Thr Phe Lys Glu Leu His Phe  
           20                  25                  30  
 Glu Ile Val Ser Tyr Asp Asp Cys Thr Ala Asn Glu Ile His Glu Ile  
       35                  40                  45  
 Leu Glu Gly Tyr Gln Ser  
       50

<210> 50  
 <211> 28  
 <212> PRT  
 <213> Mus musculus

<400> 50  
 Ala Asp His Lys Asn Lys Asp Cys Phe Ile Cys Cys Ile Leu Ser His  
   1                  5                  10                  15  
 Gly Asp Lys Gly Val Val Tyr Gly Thr Asp Gly Lys  
           20                  25

<210> 51  
 <211> 52  
 <212> PRT  
 <213> Mus musculus

<400> 51  
 Glu Ala Ser Ile Tyr Asp Leu Thr Ser Tyr Phe Thr Gly Ser Lys Cys  
   1                  5                  10                  15  
 Pro Ser Leu Ser Gly Lys Pro Lys Ile Phe Phe Ile Gln Ala Cys Arg  
       20                  25                  30  
 Gly Ser Asn Phe Gln Lys Gly Val Pro Asp Glu Ala Gly Phe Glu Gln  
       35                  40                  45  
 Gln Asn His Thr  
       50

<210> 52  
 <211> 47

<212> PRT  
 <213> Mus musculus

<400> 52  
 Ser Ser His Lys Asn Tyr Ile Pro Asp Glu Ala Asp Phe Leu Leu Gly  
   1                  5                  10                  15  
 Met Ala Thr Val Leu Met Cys Val Ser Tyr Arg Asp Pro Val Asn Gly  
                   20                  25                  30  
 Thr Trp Tyr Ile Gln Ser Leu Cys Gln Ser Leu Arg Glu Arg Cys  
                   35                  40                  45

<210> 53  
 <211> 19  
 <212> PRT  
 <213> Mus musculus

<400> 53  
 Pro Gln Gly Asp Asp Ile Leu Ser Ile Leu Thr Gly Val Asn Tyr Asp  
   1                  5                  10                  15  
 Val Ser Asn

<210> 54  
 <211> 22  
 <212> PRT  
 <213> Mus musculus

<400> 54  
 Lys Asp Asp Arg Arg Asn Lys Gly Lys Gln Met Pro Gln Pro Thr Phe  
   1                  5                  10                  15  
 Thr Leu Arg Lys Lys Leu  
                   20

<210> 55  
 <211> 260  
 <212> PRT  
 <213> Mus musculus

<400> 55  
 Met Ala Ala Pro Ser Gly Arg Ser Gln Ser Ser Leu His Arg Lys Gly  
   1                  5                  10                  15  
 Leu Met Ala Ala Asp Arg Arg Ser Arg Ile Leu Ala Val Cys Gly Met  
                   20                  25                  30  
 His Pro Asp His Gln Glu Thr Leu Lys Lys Asn Arg Val Val Leu Ala  
                   35                  40                  45  
 Lys Gln Leu Leu Leu Ser Glu Leu Leu Glu His Leu Leu Glu Lys Asp  
                   50                  55                  60

Ile Ile Thr Leu Glu Met Arg Glu Leu Ile Gln Ala Lys Gly Gly Ser  
 65 70 75 80  
 Phe Ser Gln Asn Val Glu Leu Leu Asn Leu Leu Pro Lys Arg Gly Pro  
 85 90 95  
 Gln Ala Phe Asp Ala Phe Cys Glu Ala Leu Arg Glu Thr Arg Gln Gly  
 100 105 110  
 His Leu Glu Asp Leu Leu Leu Thr Thr Leu Ser Asp Ile Gln His Val  
 115 120 125  
 Leu Pro Pro Leu Ser Cys Asp Tyr Asp Thr Ser Leu Pro Phe Ser Val  
 130 135 140  
 Cys Glu Ser Cys Pro Pro His Lys Gln Leu Arg Leu Ser Thr Asp Ala  
 145 150 155 160  
 Thr Glu His Ser Leu Asp Asn Gly Asp Gly Pro Pro Cys Leu Leu Val  
 165 170 175  
 Lys Pro Cys Thr Pro Glu Phe Tyr Gln Ala His Tyr Gln Leu Ala Tyr  
 180 185 190  
 Arg Leu Gln Ser Gln Pro Arg Gly Leu Ala Leu Val Leu Ser Asn Val  
 195 200 205  
 His Phe Thr Gly Glu Lys Asp Leu Glu Phe Arg Ser Gly Gly Asp Val  
 210 215 220  
 Asp His Thr Thr Leu Val Thr Leu Phe Lys Leu Leu Gly Tyr Asn Val  
 225 230 235 240  
 His Val Leu His Asp Gln Thr Ala Gln Glu Met Gln Glu Lys Leu Gln  
 245 250 255  
 Asn Phe Ala Gln  
 260

<210> 56  
 <211> 11  
 <212> PRT  
 <213> Mus musculus

<400> 56  
 Leu Pro Ala His Arg Val Thr Asp Ser Val Cys  
 1 5 10

<210> 57  
 <211> 18  
 <212> PRT  
 <213> Mus musculus

<400> 57



Val Ala Leu Leu Ser His Gly Val Glu Gly Gly Ile Tyr Gly Val Asp  
 1 5 10 15

Gly Lys

<210> 58  
 <211> 56  
 <212> PRT  
 <213> Mus musculus

<400> 58  
 Leu Leu Gln Leu Gln Glu Val Phe Arg Leu Phe Asp Asn Ala Asn Cys  
 1 5 10 15

Pro Ser Leu Gln Asn Lys Pro Lys Met Phe Phe Ile Gln Ala Cys Arg  
 20 25 30

Gly Asp Glu Thr Asp Arg Gly Val Asp Gln Gln Asp Gly Lys Asn His  
 35 40 45

Thr Gln Ser Pro Gly Cys Glu Glu  
 50 55

<210> 59  
 <211> 53  
 <212> PRT  
 <213> Mus musculus

<400> 59  
 Ser Asp Ala Gly Lys Glu Glu Leu Met Lys Met Arg Leu Pro Thr Arg  
 1 5 10 15

Ser Asp Met Ile Cys Gly Tyr Ala Cys Leu Lys Gly Asn Ala Ala Met  
 20 25 30

Arg Asn Thr Lys Arg Gly Ser Trp Tyr Ile Glu Ala Leu Thr Gln Val  
 35 40 45

Phe Ser Glu Arg Ala  
 50

<210> 60  
 <211> 18  
 <212> PRT  
 <213> Mus musculus

<400> 60  
 Asp Met His Val Ala Asp Met Leu Val Lys Val Asn Ala Leu Ile Lys  
 1 5 10 15

Glu Arg

<210> 61  
 <211> 35  
 <212> PRT  
 <213> Mus musculus

<400> 61  
 Glu Gly Tyr Ala Pro Gly Thr Glu Phe His Arg Cys Lys Glu Met Ser  
   1                  5                  10                  15  
 Glu Tyr Cys Ser Thr Leu Cys Gln Gln Leu Tyr Leu Phe Pro Gly Tyr  
                   20                  25                  30  
 Pro Pro Thr  
           35

<210> 62  
 <211> 31  
 <212> PRT  
 <213> Mus musculus

<400> 62  
 Met Glu Ser Glu Met Ser Asp Pro Gln Pro Leu Gln Glu Glu Arg Tyr  
   1                  5                  10                  15  
 Asp Met Ser Gly Ala Arg Leu Ala Leu Thr Leu Cys Val Thr Lys  
                   20                  25                  30

<210> 63  
 <211> 74  
 <212> PRT  
 <213> Mus musculus

<400> 63  
 Ala Arg Glu Gly Ser Glu Val Asp Met Glu Ala Leu Glu Arg Met Phe  
   1                  5                  10                  15  
 Arg Tyr Leu Lys Phe Glu Ser Thr Met Lys Arg Asp Pro Thr Ala Gln  
                   20                  25                  30  
 Gln Phe Leu Glu Glu Leu Asp Glu Phe Gln Gln Thr Ile Asp Asn Trp  
                   35                  40                  45  
 Glu Glu Pro Val Ser Cys Ala Phe Val Val Leu Met Ala His Gly Glu  
   50                  55                  60  
 Glu Gly Leu Leu Lys Gly Glu Asp Glu Lys  
   65                  70

<210> 64  
 <211> 56  
 <212> PRT  
 <213> Mus musculus

&lt;400&gt; 64

Met Val Arg Leu Glu Asp Leu Phe Glu Val Leu Asn Asn Lys Asn Cys  
 1 5 10 15

Lys Ala Leu Arg Gly Lys Pro Lys Val Tyr Ile Ile Gln Ala Cys Arg  
 20 25 30

Gly Glu His Arg Asp Pro Gly Glu Glu Leu Arg Gly Asn Glu Glu Leu  
 35 40 45

Gly Gly Asp Glu Glu Leu Gly Gly  
 50 55

&lt;210&gt; 65

&lt;211&gt; 53

&lt;212&gt; PRT

&lt;213&gt; Mus musculus

&lt;400&gt; 65

Asp Glu Val Ala Val Leu Lys Asn Asn Pro Gln Ser Ile Pro Thr Tyr  
 1 5 10 15

Thr Asp Thr Leu His Ile Tyr Ser Thr Val Glu Gly Tyr Leu Ser Tyr  
 20 25 30

Arg His Asp Glu Lys Gly Ser Gly Phe Ile Gln Thr Leu Thr Asp Val  
 35 40 45

Phe Ile His Lys Lys  
 50

&lt;210&gt; 66

&lt;211&gt; 15

&lt;212&gt; PRT

&lt;213&gt; Mus musculus

&lt;400&gt; 66

Ile Leu Glu Leu Thr Glu Glu Ile Thr Arg Leu Met Ala Asn Thr  
 1 5 10 15

&lt;210&gt; 67

&lt;211&gt; 8

&lt;212&gt; PRT

&lt;213&gt; Mus musculus

&lt;400&gt; 67

Glu Val Met Gln Glu Gly Lys Pro  
 1 5

&lt;210&gt; 68

&lt;211&gt; 18

&lt;212&gt; PRT

&lt;213&gt; Mus musculus

&lt;400&gt; 68

Arg Lys Val Asn Pro Glu Val Gln Ser Thr Leu Arg Lys Lys Leu Tyr  
 1 5 10 15

Leu Gln

&lt;210&gt; 69

&lt;211&gt; 21

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Primer derived from mouse caspase-14 cDNA

&lt;400&gt; 69

atatgatatg tcaggtgccc g

21

&lt;210&gt; 70

&lt;211&gt; 19

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Primer derived from mouse caspase-14 cDNA

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Lys	Arg	Gly	Gln	Gly
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